Dec.2004 DR-880

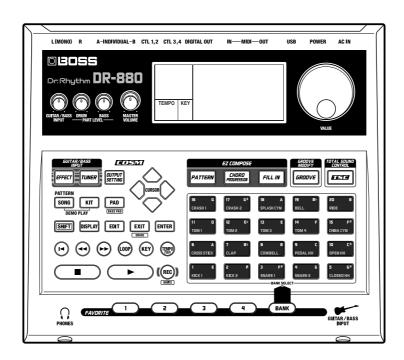
DR-880 Dr.Rhythm

SERVICE NOTES Issued by RJA

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CAUTIONARY NOTES

User data status

User data status after each of the following processes is described below. Whenever carrying out procedures that involve deleting or erasing user data, always be sure to back up the user data to some form of external media (refer to Saving and Loading Data).

Process	User Data
Checking Version number	Preserved
Factory Reset	Deleted
System Update	Preserved
Test Mode	Preserved

* Executing Test Mode during Factory Reset deletes the user data.

PARTS LIST

Due to one or more of the following reasons, parts with parts code ******** cannot be supplied as service parts.

- Part supplied only as a component in a complete assembly
- Copyright does not permit the part to be supplied
- Part is sold commercially

CIRCUIT BOARD

NIU meant that "NOT IN USE " there don't set any contents in the Circuit Diagram.

There has silk-screen only in the Circuit Board.

SPECIFICATIONS

Specifications

DR-880: Dr.Rhythm

Maximum Polyphony

32 voices

* Depending on the bass tone used, maximum polyphony may be lower.

Instruments

Drum: 440 Bass: 40

Kits

Preset: 100 User: 100

Patterns

Preset: 500 User: 500

Songs

User: 100

Maximum Note Storage

Approx. 30,000 notes

 This may be smaller than this depending on the contents of created pattern and song.

Resolution

Per quarter note: 96

Tempo

Quarter note: 20-260 bpm

Pads

20 with velocity sensitive

Display

Custom LCD with backlight

Connectors

(Rear)

Master Out L (MONO), R (1/4" Phone Type)

Master Out L, R (Phono Type) Individual A, B (1/4" Phone Type)

21 1 2 2 4 2 1 2

Digital Out (coaxial)

CTL 1,2 (TRS 1/4" Phone Type)

CTL 3,4/EXP PEDAL (TRS 1/4" Phone Type)

USB

MIDI IN, OUT

AC Adaptor

(Front)

Phones (Stereo 1/4" Phone Type) Guitar/Bass Input (1/4" Phone Type)

Power Supply

AC Adaptor (BRC series)

Power Consumption

600 mA (Max.)

Dimensions

273 (W) x 242 (D) x 72 (H) mm 10-3/4 (W) x 9-9/16 (D) x 2-7/8 (H) inches

Weight

1.4 kg / 3 lbs 2 oz (excluding AC adaptor)

Accessories

AC Adaptor 100V (#G2457143)

120V (#G2457144) 230V (#G245714101) 240V (#G2457142)

Owner's Manual English (#G6017380) Japanese (#G6017379)

DR-880 Driver CD-ROM (#G2567133)

Roland Service (Information sheet) (#*******)

Options

Foot Switch (FS-5U)

Dual Foot Switch (FS-6)

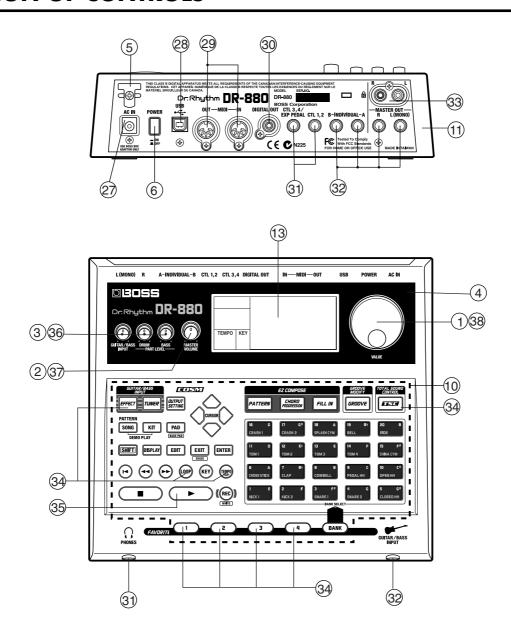
Expression Pedal (Roland EV-5)

Foot Switch Cable (Roland PCS-31)

(stereo 1/4" phone plug-1/4" phone plug x 2)

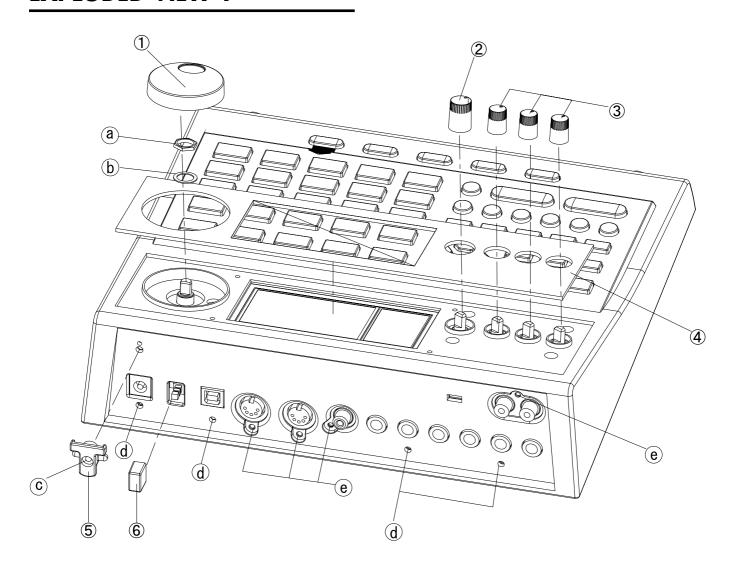
 In the interest of product improvement, the specifications and/or appearance of this unit are subject to change without prior notice.

LOCATION OF CONTROLS



LOCATION OF CONTROLS PARTS LIST

No.	PART CODE	CATEGORY	PART NAME	DESCRIPTION	Q'TY
1	F2477101	KNOB,BUTTON	DR-KNOB		1
2	22480260	KNOB,BUTTON	P R-KNOB	MF BLK/LCG	1
3	01340412	KNOB, BUTTON	P R-KNOB	SF-A BLK/LCG	3
4	G2567158	CASING	DISPLAY COVER		1
5	F2367103	MISCELLANEOUS	CORD HOOK		1
6	12499175	KNOB, BUTTON	BUTTON	JSPUE001A	1
10	G2497004	KNOB, BUTTON	SW SHEET ASSY		1
11	78E173C000	CASING	TOP CASE		1
13	F5029416	DISPLAY UNIT	LCD	HG1306C-SYL-2	1
27	13449728	JACK,EXT TERMINAL	ADAPTOR JACK	HEC0740-010010	1
28	F3439216	JACK,EXT TERMINAL	USB JACK	YKF45-0021	1
29	13429825	JACK,EXT TERMINAL	MIDI CONNECTOR	YKF51-5054 2PZ	1
30	F3439217	JACK,EXT TERMINAL	PIN JACK	YKC21-3486	1
31	F3449120	JACK,EXT TERMINAL	6.5MM JACK	HTJ-064-10D	3
32	F3449106	JACK,EXT TERMINAL	JACK	HTJ064-10I	5
33	13449650	JACK,EXT TERMINAL	PIN JACK	YKC21-3045 (DUAL)	1
34	F5339405	DIODE	LED	KP-1608SRC-PRV	8
35	F5339406	DIODE	LED	KP-1608MGC	2
36	F3229155	POTENTIOMETER	VOLUME	RV110-40E1-15A-B50K	3
37	F3229156	POTENTIOMETER	VOLUME	RV142A-40E1-15A-A50K	1
38	01905467	ENCODER	ROTARY ENCODER	EVE GC1 F20 24B	1

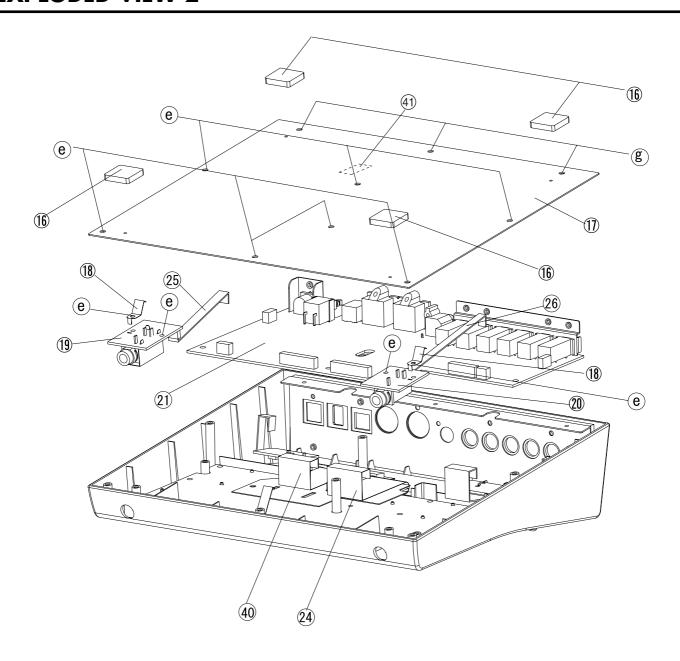


EXPLODED VIEW 1 PARTS LIST

[PARTS]

No.	PART CODE	PART NAME	DESCRIPTION	Q'TY
1	F2477101	DR-KNOB		1
2	22480260	P R-KNOB	MF BLK/LCG	1
3	01340412	P R-KNOB	SF-A BLK/LCG	3
4	G2567158	DISPLAY COVER		1
5	F2367103	CORD HOOK		1
6	12499175	BUTTON	ISPUE001A	1

No.	PART CODE	PART NAME	DESCRIPTION	Q'TY
a	*****	M9 NUT		1
b	*****	M9 WASHER		1
c	H5029343	SCREW	S-TITE 3X12 BZC	1
d	H5029331	SCREW 3X8	BINDING S-TIGHT FEBZC	4
e	H5029330	SCREW M3X8	BINDING P-TIGHT BZC	19

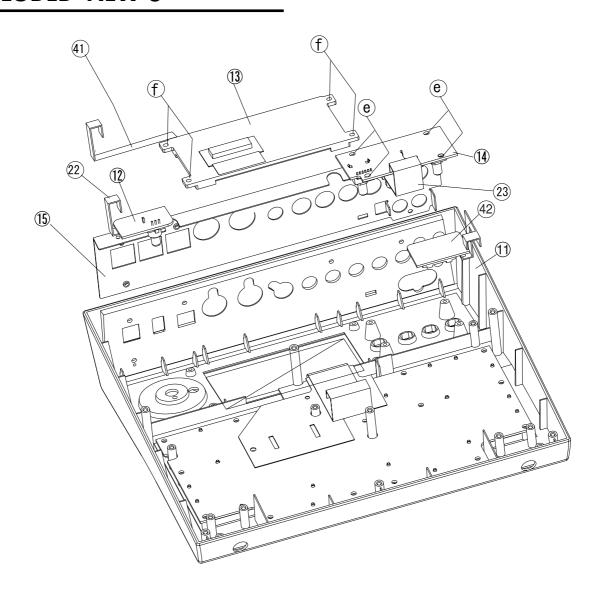


EXPLODED VIEW 2 PARTS LIST

[PARTS]

No.	PART CODE	PART NAME	DESCRIPTION	Q'TY
16	G2357132	FOOT	S20 T4	4
17	G2017197	BOTTOM CASE		1
18	G2177303	LEAF M		2
19	******	INPUT BOARD	(included with SW SHEET ASSY)	1
20	******	HEADPHONES BOARD	(included with SW SHEET ASSY)	1
21	78E173M000	MAIN SHEET ASSY		1
24	F3477006	WIRING	BNCD-P=1.25-K-22-130	1
25	F3477008	WIRING	WIRING INPUT BOARD	1
26	F3477010	WIRING	WIRING PHONES BOARD	1
40	F3477007	WIRING	BNCD-P=1.00-K-20-140	1
41	G2357117	FOOT	T=4MM 15MMX30MM	1

No.	PART CODE	PART NAME	DESCRIPTION	Q'TY
e	H5029330	SCREW M3X8	BINDING P-TIGHT BZC	19
g	H5029332	SCREW 3X6	BINDING S-TIGHT FEBZC	3

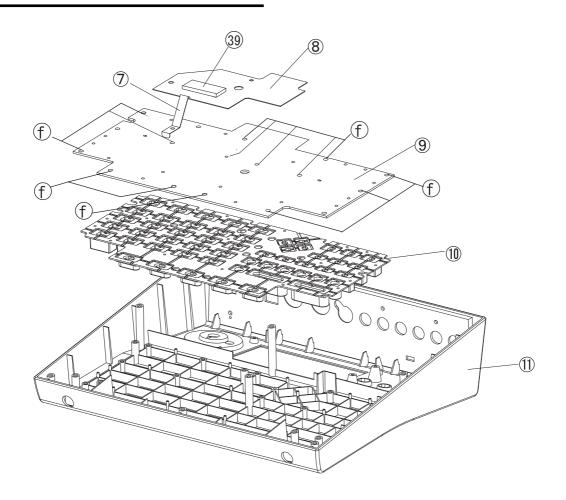


EXPLODED VIEW 3 PARTS LIST

[PARTS]

No.	PART CODE	PART NAME	DESCRIPTION	Q'TY
11	78E173C000	TOP CASE		1
12	******	ENCODER BOARD	(included with SW SHEET ASSY)	1
13	F5029416	LCD	HG1306C-SYL-2	1
14	******	VR BOARD ASSY	(included with MAIN SHEET ASSY)	1
15	G1147703	REAR PLATE		1
22	F3477009	WIRING	WIRING PIN JACK BOARD	1
23	F3477011	WIRING	WIRING VR BOARD	1
41	F3477012	WIRING	WIRING LCD BACK LIGHT	1
42	******	PIN JACK BOARD	(included with SW SHEET ASSY)	1

No.	PART CODE	PART NAME	DESCRIPTION	Q'TY
e	H5029330	SCREW M3X8	BINDING P-TIGHT BZC	11
f	H5019431	SCREW	P-TITE 3X6 ZC	18



EXPLODED VIEW 4 PARTS LIST

[PARTS]

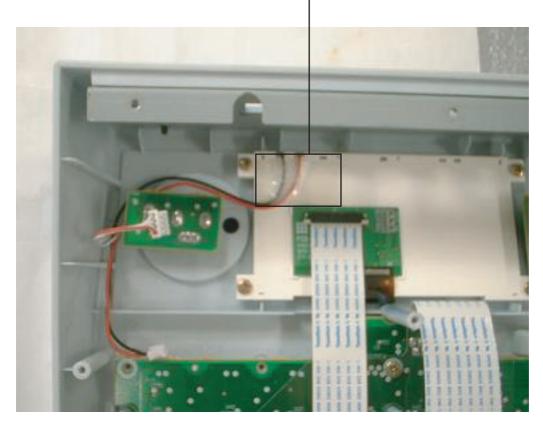
No.	PART CODE	PART NAME	DESCRIPTION	Q'TY
7	G2177302	LEAF L		1
8	G2257317	INSULATING SHEET		1
9	78E173S000	SW SHEET ASSY		1
10	G2497004	RUBBER SW		1
11	78E173C000	TOP CASE		1
39	F2449236	FERRITE CORE	FS0C320RT01	1

No.	PART CODE	PART NAME	DESCRIPTION	Q'TY
f	H5019431	SCREW	P-TITE 3X6 ZC	18

TAPE for fixed wring

TAPE SIZE 2.0cm

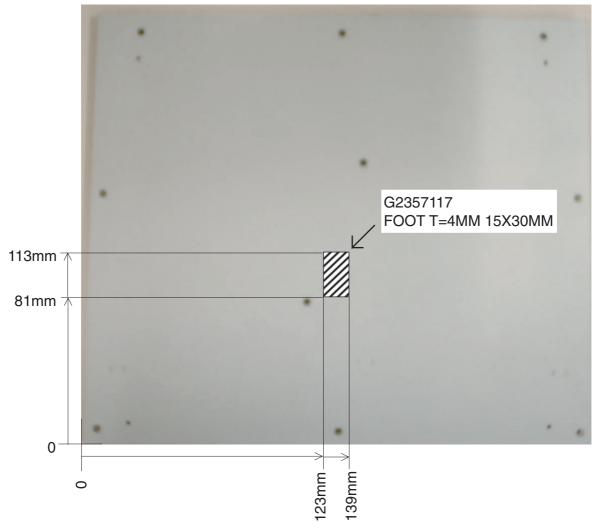
Fixed by Tape



TAPE: 40122645 NITTO FILAMENT TAPE #3883 W19MM 50M 60P (CM)

LOCATION TO PASTE of FOOT (Inside of Bottom)

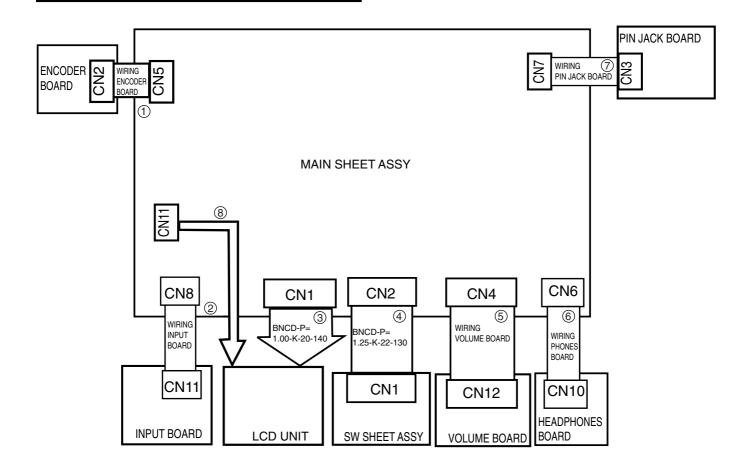
Figure for Location to paste.



Completion drawing.



WIRING DIAGRAM



WIRING DIAGRAM PARTS LIST

NO	PART CODE	PART NAME	DESCRIPTION	Q'TY
1	F3477013	WIRING	WIRING ENCODER BOARD	1
2	F3477008	WIRING	WIRING INPUT BOARD	1
3	F3477007	WIRING	BNCD-P=1.00-K-20-140	1
4	F3477006	WIRING	BNCD-P=1.25-K-22-130	1
5	F3477011	WIRING	WIRING VR BOARD	1
6	F3477010	WIRING	WIRING PHONES BOARD	1
7	F3477009	WIRING	WIRING PIN JACK BOARD	1
8	F3477012	WIRING	WIRING LCD BACK LIGHT	1

PARTS LIST

SAFETY PRECAUTIONS:

The parts marked \triangle have safety-related characteristics. Use only listed parts for replacement.

Due to one or more of the following reasons, parts with parts code ******** cannot be supplied as service parts.

- Part supplied only as a component in a complete assembly
 Copyright does not permit the part to be supplied
 Part is sold commercially

NOTE: The parts marked # are new. (initial parts)

The description "Q'TY" means a necessary number of the parts per one product.

CASING					
#	G2017197	BOTTOM CASE			1
#	G2567158	DISPLAY COVER			1
#	G1147703	REAR PLATE			1
#	78E173C000	TOP CASE			1
KNOB,BUT	TON				
	01340412	P R-KNOB	SF-A BLK/LCG		3
	22480260	P R-KNOB	MF BLK/LCG		1
	12499175	BUTTON	JSPUE001A	POWER SW KNOB	1
	F2477101	DR-KNOB			1
#	G2497004	RUBBER SW		SW BOARD	1
SWITCH					
#	F3129307	PUSH SWITCH	SDKLA1-B	SW1	1
JACK,EXT	TERMINAL 13429825	MIDI CONNECTOR	VVEE1 E0E4 2D7	II/2	1
#	F3439216	USB JACK	YKF51-5054 2PZ YKF45-0021	JK2 JK1	1
#				•	1
#	F3439217	PIN JACK	YKC21-3486	JK3, JK11	1
	13449650	PIN JACK	YKC21-3045 (DUAL)	JK1	1
	F3449106	JACK	HTJ064-10I	JK6,JK7,JK8,JK9, JK10	5
	F3449120	6.5MM JACK	HTJ-064-10D	JK4,JK5	3
	13449728	ADAPTOR JACK	HEC0740-010010	JK12	1
	G2147118	AC JACK HOLDER		JK12	1
#	G2147820	JACK HOLDER		JK4-9	1
DICDL AV II	AUT.				
#	F5029416	HG1306C-SYL-2	LCD		1
"	1002)110	11010000 012 2	LCD		1
PWB ASSY					
#	F2927025	MAIN SHEET ASSY			1
		HEET ASSY includes the follwing par	rts		_
	*****	VR BOARD ASSY			1
#	F2927026	SW SHEET ASSY			1
π					1
	1NOTE:377 SHE	ET ASSY includes the following parts	·		1
		ENCORDER BOARD ASSY			1
	******	INPUT BOARD ASSY			1
	*****	HEADPHONES BOARD ASSY			1
	*****	PIN JACK BOARD ASSY			1
IC					
	F5199108	NJM2374AM-TE1	IC(SWITING REGULATOR)	IC26	1
#	F5179609	MR27V12800J	IC P2ROM(WAVE)	IC9	1
	02900978	M66291GP	IC (USB CONTROLLER)	IC4	1
	F5279861	M12L16161A-7T	IC (SDRAM)	IC6	1
#			*		1
#	F5209173	S-80930CNMC-G80	IC (RESET)	IC16	
#	F5199524	UPC29M33AT	IC (REGULATOR)	IC27	1
#	F5229704	PC400T	IC (PHOTO COUPLER)	IC5	1
	F5289102	NJM2100M 8P SOP	IC (OP.AMP)	IC21	1
#	F5289140	M5238AFP-600C	IC (OP AMP)	IC25	1
	F5289139	NJM45564M-TE1	IC (OP AMP)	IC19	1
	F5279309	BU2090F-E2	IC (LED DRIVER)	IC1	1
#	*****	MBM29DL164BE-70	IC (FLASH MEMORY)	IC13	1
	02231767	RA0A-101 (TC223C080AF-101)	IC (DSP)	IC10	1
		,			
	03347056 03676990	LC32V4265CT-25-TLM-E AK4386VTP-E2	IC (DRAM) IC (DA)	IC12 IC23	1

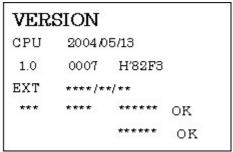
	02677490	RA0C-003XP7TC203C180AF003	IC (CUSTOM)	IC8
	03676856	UPD703106AGJ-086-UEN (BG324 M)	IC (CPU)	IC11
	F5249108	TC74VHC245FT	IC (CMOS)	IC2,IC25
	F5279314	TC7S04FU	IC (CMOS)	IC17
	F5279315	TC7SH32FU	IC (CMOS)	IC15,IC28
	F5279316	TC7W04FU	IC (CMOS)	IC7
	15189261	M5218AFP-600E	IC (BIPOLAR OP AMP)	IC14,IC20,IC24
	02900812	AK4353VFP-E2	IC (AD/DA)	IC18
	02451434	AK4552VT	IC (AD/DA)	IC22
	02431434	AN4552V1	IC (AD/DA)	1022
RANSISTOR				
TANGIOTOTI	F5309115	2SA1241-Y	TRANSISTOR	Q11
	15319104	2SA1586-GR(TE85R)	TRANSISTOR	Q9
	F5309602	2SB1182	TRANSISTOR	Q13
	15319101	2SC2412KR T146	TRANSISTOR	Q10
	F5319602	2SD1758	TRANSISTOR	Q12
	F5329529	RN1441	TRANSISTOR	Q1,Q2,Q3,Q4,Q5,Q6,Q7,Q8,Q14,Q15
	15329103	2SK880GR-TE85R	FET	Q1
ODE	15019525	RD-5.6EB-2	ZENER DIODE	D12
	F5339318	RD13ESAB2	ZENER DIODE	D9,D10
	F5339406	KP-1608MGC	LED	LED1,LED2
	F5339406 F5339405	KP-1608SRC-PRV	LED	LED1,LED2 LED4,LED5,LED7,LED9,LED11,LED15,LE
	1 0007700	RI 10000RC-I KV	LLD	D16,LED17
	F5339165	DA204U	DIODE ARRAY	DA1,DA2,DA3,DA4,DA5,DA6,DA7,DA28
	F5339163	DAP202U	DIODE ARRAY	DA1,DA2,DA3,DA4,DA5,DA6,DA7,DA8,D
				A9,DA10,DA11,DA12,DA13,DA14,DA15,D
				A16,DA17,DA18,DA19,DA20,DA21,DA22,
	TEOLOGOS	43.14004	DIODE	DA23,DA24,DA25,DA26,DA27
	F5019203	1N4004	DIODE	D6,D8,D11
	15339119	1SS-352	DIODE	D1,D2,D3,D4,D5
	F5339137	SS14 VF=0.45V	DIODE	D7
ESISTOR	F5399115	100 J	RESISTOR	R27,R28,R16,R60
	F5399145	12K J	RESISTOR	R164,R165
	F5399917	22 (1/2W)	RESISTOR	R20,R93,R109
	F5399111	22 J	RESISTOR	R22
	F5429346	3.3KF 1%	RESISTOR	R152
	F5399157	39K J	RESISTOR	R124.131
	F5399137	4.7K J	RESISTOR	R63,R64,R66,R67,R68,R74,R75,R80,R81,R82
		•		
	F5399195	470K J	RESISTOR	R36,R59,R72,R140
	F5399158	47K J	RESISTOR	R138
	F5399914	6.8KF	RESISTOR	R96
	F5399116	82K J	RESISTOR	R15
	F5429386	150K F (1608TYPE)	MTL.FILM.RESISTOR	R107
	F5399713	0.56(1/2W)	MTL.FILM RESISTOR	R147
	F5399129	1.5K J	MTL.FILM RESISTOR	R5,R14,R153,R154
	F5399104	10 J	MTL.FILM RESISTOR	R31,R65,R92,R5,R6
	F5399104 F5399170	100K J	MTL.FILM RESISTOR	R13,R37,R52,R53,R55,R56,R70,R73,R79,R89,
	10099170	10010 j	WILLI ILWI KEGIJIOK	R90,R95,R101,R108,R117,R119,R123,R127,R
				128,R130,R134,R135,R136,R162,R163,R167,
				R168
	F5419770	100KX4	MTL.FILM RESISTOR	RA18,RA19
		100X4 100X4	MTL.FILM RESISTOR	RA3,RA6,RA7
	F5419758		L ILIVI KLUIUIUI OK	
	F5419758 F5399140		MTI EII M RESISTOR	R1 R4 R7 R8 R10 R17 R21 R22 R24 R25 R20
	F5419758 F5399140	100A4 10K J	MTL.FILM RESISTOR	R1,R4,R7,R8,R10,R17,R21,R23,R24,R25,R29, R30,R43,R51,R54,R57,R58,R100,R102,R120,
	F5399140	10K J		R30,R43,R51,R54,R57,R58,R100,R102,R120, R121,R137,R139,R300
	F5399140 F5429365	10K J 10K OHM F RANK (1%)	MTL.FILM RESISTOR	R30,R43,R51,R54,R57,R58,R100,R102,R120, R121,R137,R139,R300 R110
	F5399140 F5429365 F5419759	10K J 10K OHM F RANK (1%) 10KX4	MTL.FILM RESISTOR MTL.FILM RESISTOR	R30,R43,R51,R54,R57,R58,R100,R102,R120, R121,R137,R139,R300 R110 RA22,RA23,RA25,RA26,RA28
	F5399140 F5429365 F5419759 F5399121	10K J 10K OHM F RANK (1%) 10KX4 180	MTL.FILM RESISTOR MTL.FILM RESISTOR MTL.FILM RESISTOR	R30,R43,R51,R54,R57,R58,R100,R102,R120, R121,R137,R139,R300 R110 RA22,RA23,RA25,RA26,RA28 R8,R9,R11,R13
	F5399140 F5429365 F5419759	10K J 10K OHM F RANK (1%) 10KX4	MTL.FILM RESISTOR MTL.FILM RESISTOR	R30,R43,R51,R54,R57,R58,R100,R102,R120, R121,R137,R139,R300 R110 RA22,RA23,RA25,RA26,RA28
	F5399140 F5429365 F5419759 F5399121 F5399128 F5399200	10K J 10K OHM F RANK (1%) 10KX4 180 1K J 1M J	MTL.FILM RESISTOR MTL.FILM RESISTOR MTL.FILM RESISTOR	R30,R43,R51,R54,R57,R58,R100,R102,R120, R121,R137,R139,R300 R110 RA22,RA23,RA25,RA26,RA28 R8,R9,R11,R13 R76,R78,R84,R86,R91,R99,R112,R116,R125, R126,R132,R133,R141,R148 R26,R32,R145
	F5399140 F5429365 F5419759 F5399121 F5399128	10K J 10K OHM F RANK (1%) 10KX4 180 1K J	MTL.FILM RESISTOR MTL.FILM RESISTOR MTL.FILM RESISTOR MTL.FILM RESISTOR	R30,R43,R51,R54,R57,R58,R100,R102,R120, R121,R137,R139,R300 R110 RA22,RA23,RA25,RA26,RA28 R8,R9,R11,R13 R76,R78,R84,R86,R91,R99,R112,R116,R125, R126,R132,R133,R141,R148
	F5399140 F5429365 F5419759 F5399121 F5399128 F5399200	10K J 10K OHM F RANK (1%) 10KX4 180 1K J 1M J	MTL.FILM RESISTOR MTL.FILM RESISTOR MTL.FILM RESISTOR MTL.FILM RESISTOR	R30,R43,R51,R54,R57,R58,R100,R102,R120, R121,R137,R139,R300 R110 RA22,RA23,RA25,RA26,RA28 R8,R9,R11,R13 R76,R78,R84,R86,R91,R99,R112,R116,R125, R126,R132,R133,R141,R148 R26,R32,R145
	F5399140 F5429365 F5419759 F5399121 F5399128 F5399200 F5399130	10K J 10K OHM F RANK (1%) 10KX4 180 1K J 1M J 2.2K J	MTL.FILM RESISTOR MTL.FILM RESISTOR MTL.FILM RESISTOR MTL.FILM RESISTOR MTL.FILM RESISTOR MTL.FILM RESISTOR	R30,R43,R51,R54,R57,R58,R100,R102,R120, R121,R137,R139,R300 R110 RA22,RA23,RA25,RA26,RA28 R8,R9,R11,R13 R76,R78,R84,R86,R91,R99,R112,R116,R125, R126,R132,R133,R141,R148 R26,R32,R145 R150
	F5399140 F5429365 F5419759 F5399121 F5399128 F5399200 F5399130 F5399190 F5399152	10K J 10K OHM F RANK (1%) 10KX4 180 1K J 1M J 2.2K J 220K J 22K J	MTL.FILM RESISTOR	R30,R43,R51,R54,R57,R58,R100,R102,R120, R121,R137,R139,R300 R110 RA22,RA23,RA25,RA26,RA28 R8,R9,R11,R13 R76,R78,R84,R86,R91,R99,R112,R116,R125, R126,R132,R133,R141,R148 R26,R32,R145 R150 R1,R3 R97,R114
	F5399140 F5429365 F5419759 F5399121 F5399128 F5399200 F5399130 F5399190 F5399152 F5399295	10K J 10K OHM F RANK (1%) 10KX4 180 1K J 1M J 2.2K J 220K J 22K J 27	MTL.FILM RESISTOR	R30,R43,R51,R54,R57,R58,R100,R102,R120, R121,R137,R139,R300 R110 RA22,RA23,RA25,RA26,RA28 R8,R9,R11,R13 R76,R78,R84,R86,R91,R99,R112,R116,R125, R126,R132,R133,R141,R148 R26,R32,R145 R150 R1,R3 R97,R114
	F5399140 F5429365 F5419759 F5399121 F5399128 F5399200 F5399130 F5399190 F5399152 F5399295 F5399132	10K J 10K OHM F RANK (1%) 10KX4 180 1K J 1M J 2.2K J 220K J 22K J 27 3.3K	MTL.FILM RESISTOR	R30,R43,R51,R54,R57,R58,R100,R102,R120, R121,R137,R139,R300 R110 RA22,RA23,RA25,RA26,RA28 R8,R9,R11,R13 R76,R78,R84,R86,R91,R99,R112,R116,R125, R126,R132,R133,R141,R148 R26,R32,R145 R150 R1,R3 R97,R114 R9,R6 R35
	F5399140 F5429365 F5419759 F5399121 F5399128 F5399200 F5399130 F5399190 F5399152 F5399295 F5399295 F5399132 F5419768	10K J 10K OHM F RANK (1%) 10KX4 180 1K J 1M J 2.2K J 220K J 22K J 27 3.3K 4.7KX4	MTL.FILM RESISTOR	R30,R43,R51,R54,R57,R58,R100,R102,R120, R121,R137,R139,R300 R110 RA22,RA23,RA25,RA26,RA28 R8,R9,R11,R13 R76,R78,R84,R86,R91,R99,R112,R116,R125, R126,R132,R133,R141,R148 R26,R32,R145 R150 R1,R3 R97,R114 R9,R6 R35 RA30
	F5399140 F5429365 F5419759 F5399121 F5399128 F5399200 F5399130 F5399190 F5399152 F5399295 F5399132	10K J 10K OHM F RANK (1%) 10KX4 180 1K J 1M J 2.2K J 220K J 22K J 27 3.3K	MTL.FILM RESISTOR	R30,R43,R51,R54,R57,R58,R100,R102,R120, R121,R137,R139,R300 R110 RA22,RA23,RA25,RA26,RA28 R8,R9,R11,R13 R76,R78,R84,R86,R91,R99,R112,R116,R125, R126,R132,R133,R141,R148 R26,R32,R145 R150 R1,R3 R97,R114 R9,R6 R35
	F5399140 F5429365 F5419759 F5399121 F5399128 F5399200 F5399130 F5399152 F5399152 F5399295 F5399132 F5419768 F5399962 F5399106	10K J 10K OHM F RANK (1%) 10KX4 180 1K J 1M J 2.2K J 220K J 22K J 27 3.3K 4.7KX4 43(1/2W) 47 J	MTL.FILM RESISTOR	R30,R43,R51,R54,R57,R58,R100,R102,R120, R121,R137,R139,R300 R110 RA22,RA23,RA25,RA26,RA28 R8,R9,R11,R13 R76,R78,R84,R86,R91,R99,R112,R116,R125, R126,R132,R133,R141,R148 R26,R32,R145 R150 R1,R3 R97,R114 R9,R6 R35 RA30 R69,R71,R155 R41,R42,R44,R45,R46,R47,R48,R49,R50,R15 9,R160
	F5399140 F5429365 F5419759 F5399121 F5399128 F5399200 F5399130 F5399152 F5399152 F5399295 F5399132 F5419768 F5399962 F5399961	10K J 10K OHM F RANK (1%) 10KX4 180 1K J 1M J 2.2K J 220K J 22K J 27 3.3K 4.7KX4 43(1/2W) 47 J	MTL.FILM RESISTOR	R30,R43,R51,R54,R57,R58,R100,R102,R120, R121,R137,R139,R300 R110 RA22,RA23,RA25,RA26,RA28 R8,R9,R11,R13 R76,R78,R84,R86,R91,R99,R112,R116,R125, R126,R132,R133,R141,R148 R26,R32,R145 R150 R1,R3 R97,R114 R9,R6 R35 RA30 R69,R71,R155 R41,R42,R44,R45,R46,R47,R48,R49,R50,R15 9,R160 R161
	F5399140 F5429365 F5419759 F5399121 F5399128 F5399200 F5399130 F5399152 F5399152 F5399295 F5399132 F5419768 F5399962 F5399106	10K J 10K OHM F RANK (1%) 10KX4 180 1K J 1M J 2.2K J 220K J 22K J 27 3.3K 4.7KX4 43(1/2W) 47 J	MTL.FILM RESISTOR	R30,R43,R51,R54,R57,R58,R100,R102,R120, R121,R137,R139,R300 R110 RA22,RA23,RA25,RA26,RA28 R8,R9,R11,R13 R76,R78,R84,R86,R91,R99,R112,R116,R125, R126,R132,R133,R141,R148 R26,R32,R145 R150 R1,R3 R97,R114 R9,R6 R35 RA30 R69,R71,R155 R41,R42,R44,R45,R46,R47,R48,R49,R50,R15 9,R160

# PS99918	#	F5419769	68X4	MTL.FILM RESISTOR	RA20,RA21,RA24,RA27,RA29,RA31,RA32,	10
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## PASSONS BEZYATYSTO BEZYATYSTO COMMAND COMMAND	#	F3229155				3
# F359/951	#	F3229156	RV142A-40E1-15A-A50K	VOLUME	VR4	1
023-1489 DEPTICE/PMAS MILAR CAPACTORSISTMERION C189 C1896996 22/58 CHIP CAPACTOR (1688 TYPE) C25C76.253.5234 C1895893897 CHIP CAPACTOR (1688 TYPE) C165C76.253.533.534 C189589389 C1895893151907 CHIP CAPACTOR (1688 TYPE) C165C76.253.535.634 C18958939 C1895893151907 CHIP CAPACTOR (1688 TYPE) C165C6.253.535.634 C1895893 C1895893164225FT CHIP CAPACTOR (1688 TYPE) C165C6.253.535.634 C1895893 C1895893164 C189589318 C189						
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C55.C26.C28.C29.C38.C31.C32.C33.C34.C3			•	` ,		11
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Secondary Seco						
215,C216,C217/C218,C219,C220,C223,C228,C228,C228,C228,C228,C228,C228					96,C198,C200,C202,C203,C204,C205,C206,C	
F359994 GRM39CH22IJ50PT220P J CHIP CAPACITOR (1608 TYPE) C167 F369181 1000J55 CHEMICAL CAPACITOR C167 CI57 CI57 CI57 CI57 CI57 CI57 CI57 CI5					215,C216,C217,C218,C219,C220,C221,C222,	
F339904 GRM9SCH221 S0PT220P CHIP CAPACITOR (1698 TYPE) C105 F3639181 13639550KM 100UF/16V CHEMICAL CAPACITOR C187,C195 F3629988 4.7750 CHEMICAL CAPACITOR C167 F3629988 4.7750 CHEMICAL CAPACITOR C124,C127,C138,C189,C192,C193,C194,C19 F3639534 470/16 CHEMICAL CAPACITOR C126,C141,C174,C183 F3639139 470/35 CHEMICAL CAPACITOR C125,C136,C237,C238,C239,C240,C241,C24 F35398927 68P CHEMICAL CAPACITOR C235,C236,C237,C238,C239,C240,C241,C24 F35398902 ECRA1HM0108 1UF/50V CHEMICAL CAPACITOR C325,C236,C237,C238,C239,C240,C241,C24 F35399002 ECRA1HM0108 1UF/50V CHEMICAL CAPACITOR C36,C124,C44,C135,C176,C199,C201 F353970601 10P CERAMIC CAPACITOR C96,C72,C728,C212,C121,C213,C214 F3539907 15P CERAMIC CAPACITOR C96,C72,C728,C212,C122,C213,C214 F3539907 15P CERAMIC CAPACITOR C96,C72,C728,C212,C122,C213,C214 F3539907 15P CERAMIC CAPACITOR C96,C72,C729,C212,C213,C214 F3539907 15P CAPACITOR C96,C72,C729,C212,C213,C214 F3539907 15P CAPACITOR C96,C72,C729,C22,C68,C73,C99,C73,C99,C73,C99,C73,C99,C73,C99,C73,C99,C73,C79,C79,C79,C79,C79,C79,C79,C79,C79,C79						
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F3629698		13639550KM	100UF/16V	CHEMICAL CAPACITOR		8
F3639554	<u> </u>	F3629698	4.7/50	CHEMICAL CAPACITOR		1
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F3629692 0.22/50V						
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103,C106,C109,C112,C113,C117,C119,C121, C122,C126,C135,C137,C139,C140,C142,C14						1
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NDUCTOR, COIL, FILTER						
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13529246 DSS310-91D223S-50ATL12-134 EMI FILTER FL4,FL2 12449386 SBT-0180W EMI FILTER L13 F2449234 TSL1112-471KR72 CHOKE COIL L28 F2449233 ZCYS51R5-M3PAT CHOKE COIL L3 CRYSTAL, RESONATOR F5299114 HC-49SM 5MHZ CRYSTAL X3 F5299315 HC-49SM(6MHZ) CRYSTAL X1 02672401 SG-8002JC 67.7376MHZ PC CRYSTAL X2 ENCODER O1905467 EVE GC1 F20 24B ROTARY ENCODER EN1 CONNECTOR F3439220 20FMN-BTK-A CONNECTOR CN1 F3439224 22FE-BT-VK-N CONNECTOR CN2 CONNECTOR F3439224 22FE-BT-VK-N CONNECTOR CN2 CONNECTOR CONNECTOR CONNECTOR CN2 CN2 CN2 CN2 CN2 CN2 CN2 CN2 CN2		F5409102	N1608Z601T02	FERRITE-BEAD		2
12449386 SBT-0180W EMI FILTER L13					0,L31,L32,L33,L34,L23,L24,L25,L26,L27	
F F2449234 TSL1112-471KR72 CHOKE COIL L28 F2449233 ZCYS51R5-M3PAT CHOKE COIL L3 CRYSTAL, RESONATOR F5299114 HC-49SM 5MHZ CRYSTAL X3 F5299315 HC-49SM(6MHZ) CRYSTAL X1 02672401 SG-8002JC 67.7376MHZ PC CRYSTAL X2 ENCODER 01905467 EVE GC1 F20 24B ROTARY ENCODER EN1 CONNECTOR F F3439220 20FMN-BTK-A CONNECTOR CN1 F F3439224 22FE-BT-VK-N CONNECTOR CN2						2
# F2449233 ZCYS51R5-M3PAT CHOKE COIL L3 CRYSTAL, RESONATOR F5299114 HC-49SM 5MHZ CRYSTAL X3 F5299315 HC-49SM(6MHZ) CRYSTAL X1 02672401 SG-8002JC 67.7376MHZ PC CRYSTAL X2 ENCODER ENCODER CONNECTOR # F3439220 20FMN-BTK-A CONNECTOR CN1 F F3439224 22FE-BT-VK-N CONNECTOR CN2						1
CRYSTAL, RESONATOR F5299114 HC-49SM 5MHZ CRYSTAL X3 F5299315 HC-49SM(6MHZ) CRYSTAL X1 02672401 SG-8002JC 67.7376MHZ PC CRYSTAL X2 ENCODER ENCODER CONNECTOR F 53439220 20FMN-BTK-A CONNECTOR CN1 F 53439224 22FE-BT-VK-N CONNECTOR CN2						1
F5299114 HC-49SM 5MHZ CRYSTAL X3 F5299315 HC-49SM(6MHZ) CRYSTAL X1 02672401 SG-8002JC 67.7376MHZ PC CRYSTAL X2 ENCODER 01905467 EVE GC1 F20 24B ROTARY ENCODER EN1 CONNECTOR F F3439220 20FMN-BTK-A CONNECTOR CN1 F F3439224 22FE-BT-VK-N CONNECTOR CN2	т	1 ⁻²⁻¹ 7233	ZC 1331KJ-W3F A 1	CHOKE COIL	LJ	1
# F5299315 HC-49SM(6MHZ) CRYSTAL X1 02672401 SG-8002JC 67.7376MHZ PC CRYSTAL X2 ENCODER 01905467 EVE GC1 F20 24B ROTARY ENCODER EN1 CONNECTOR # F3439220 20FMN-BTK-A CONNECTOR CN1 # F3439224 22FE-BT-VK-N CONNECTOR CN2	CRYSTAL, RES		LIC 40CM ENGLIS	CDVCTAI	V2	1
## F3439220 20FMN-BTK-A CONNECTOR CN1 ## F3439224 22FE-BT-VK-N CONNECTOR CN2	±					1
01905467 EVE GC1 F20 24B ROTARY ENCODER EN1 CONNECTOR F F3439220 20FMN-BTK-A CONNECTOR CN1 F F3439224 22FE-BT-VK-N CONNECTOR CN2	Ŧ		, ,			1
01905467 EVE GC1 F20 24B ROTARY ENCODER EN1 CONNECTOR F F3439220 20FMN-BTK-A CONNECTOR CN1 F F3439224 22FE-BT-VK-N CONNECTOR CN2						
# F3439220 20FMN-BTK-A CONNECTOR CN1 # F3439224 22FE-BT-VK-N CONNECTOR CN2	ENCODER	01905467	EVE GC1 F20 24B	ROTARY ENCODER	EN1	1
# F3439220 20FMN-BTK-A CONNECTOR CN1 # F3439224 22FE-BT-VK-N CONNECTOR CN2						
‡ F3439224 22FE-BT-VK-N CONNECTOR CN2		F3439220	20FMN-BTK-A	CONNECTOR	CN1	1
						1
, 10-10/220 ZZIE DI VICIN CONTRECTOR CINI		F3439223	22FE-ST-VK-N	CONNECTOR	CN1	1

_	TO 4001 TO	1 0004141110 4CD D 01 01	CONTRIECTOR	CD 14	
	F3439158	A2001WV2-10P P=2MM	CONNECTOR	CN4	1
#	F3439222	A2001WV2-3P	CONNECTOR	CN6,CN7,CN11	3
ŧ	F3439221	A2001WV2-4P	CONNECTOR	CN5,CN8	2
VIRING, CA	ABLE				
ŧ	F3477011	WIRING	WIRING VR BOARD	CN12	1
!	F3477009	WIRING	WIRING PIN JACK BOARD	CN3	1
ŧ	F3477010	WIRING	WIRING PHONES BOARD	CN10	1
ŧ	F3477012	WIRING	WIRING LCD BACK LIGHT	CN11	
ŧ	F3477008	WIRING	WIRING INPUT BOARD	CN11	
ŧ	F3477013	WIRING	WIRING ENCODER BOARD	CN2	
ŧ	F3477006	WIRING	BNCD-P=1.25-K-22-130	MAIN - SW	
	F3477007	WIRING	BNCD-P=1.00-K-20-140	MAIN - LCD	
ICK UP SE	NSOR				
#	F2959115	PIEZO PICKUP	DB-E648	PIEZO1	1
CREWS	HE020242	CCDEMI	S-TITE 3X12 BZC		
<u>!</u>	H5029343	SCREW			
‡	H5019431 H5029330	SCREW MAYS	P-TITE 3X6 ZC		
	H5029330 H5029332	SCREW M3X8 SCREW 3X6	BINDING P-TIGHT BZC BINDING S-TIGHT FEBZC		
	H5029332 H5029331	SCREW 3X8	BINDING S-TIGHT FEBZC		
	H5019803	SCREW 3X8	BINDING S-TIGHT FEDZC BINDING P-TIGHT FECM		
	H3019603	SCREW 3A0	DINDING F-11GHT FECIVI		•
PACKING					
ŧ	G2267505	PAD	SIDE PAD R		
#	G2267504	PAD	SIDE PAD L		
#	G2267515	PAD	PAD2		
#	G2267514	PAD	PAD1		
‡	G2267403	PAD	CD PAD		
#	G2617301	OUTER PACKING CASE			
#	G2267405	OUTER SHEET			
‡	G2607114	PACKING CASE			
MISCELLAN	NEOUS				
‡	F2449236	FERRITE CORE	FS0C320RT01		
	F2367103	CORD HOOK			
#	G2257317	INSULATING SHEET			
	G2257203	JACK COVER		INPUT BOARD JK10	
#	G2177303	LEAF M		•	
	G2177302	LEAF L			
#	G2357132	FOOT	S20 T4		
	G2357117	FOOT	T=4MM 15MMX30MM		
	40122645	NITTO FILAMENT TAPE	#3883 W19MM 50MM 60P(CM)		
VCCESSOF	RIES (Standard)				
LCESSOR	G6017379	OWNER'S MANUAL	JAPANESE		
1	G6017379 G6017380	OWNER'S MANUAL	ENGLISH		
	40232389	WARRANTY CARD	FOR BOSS JAPAN ONLY		
	00905234	EURO CONVERTER PLUG	ECP01-5A		
	G2457142	AC ADAPTOR	BRC-240T		
4	G243/14Z		BRC-230T		
#	C245714101		11155 = 7.30.1		
¥	G245714101	AC ADAPTOR			
	G2457144	AC ADAPTOR	BRC-120T		
#					

CHECKING THE VERSION NUMBER

While holding down the [RESET][RWD] and [FWD] buttons, power-on the DR-880.



The version of CPU and FLASH MOMORY will appear.

Computer to DR-880 connection

In order to allow MIDI communication between the DR-880 and your computer, you must first install the USB MIDI driver.

* The USB MIDI driver is included on the CD-ROM "DR-880 Driver."

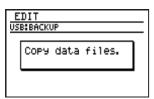
USERS DATA SAVE AND LOAD

Backing up the DR-880's data

Windows users

- 1. Use a USB cable to connect the DR-880 to your computer.
- **2.** With playback stopped, press [EDIT]. The edit menu screen appears.
- **3.** Move the cursor to the "USB" icon and press [ENTER]. The USB menu screen appears.
- **4.** Move the cursor to the "BACKUP" icon and press [ENTER]. The USB backup screen appears.

If USB Mode is set to "MIDI," the message "Check USB Mode!" is displayed, and the SMF Backup screen will not appear. Press [ENTER], and change the USB Mode to "STORAGE," and then power it up again (p. 134).



If there is any edited data that has not been saved, the "Cancel edit?" message will appear

If you press [ENTER], your edits will be discarded, and the unedited data will be backed up.

If you press [EXIT], the backup process will be aborted, and you will return to the USB menu screen.

When connection with the computer has been established, the message will displayed "Copy data files."

A "BOSS_DR-880" icon (or a "Removable disk (*:)" icon) will appear on the computer.







5. Double-click the "BOSS_DR-880" (or "Removable disk (*:)") icon. The files from the DR-880 will be displayed on the computer.

Contents
System settings
Guitar effects user patches
User kits
User patterns and user songs
TSC user patches

- 6. Copy the files to be backed up into a backup folder on your computer. It is good practice to create a new folder for the storage of backup data.
- **7.** Close the USB connection.

Windows XP users

Right-click the "BOSS_DR-880" icon (or the "Removable disk (*:)" icon) in My Computer, and execute "Remove."

If you are unable to execute the "Remove" operation in this way, proceed as follows.

1) Click theicon in the task tray, and click the message that indicates "Safely remove drive (*:)".



Task bar ↑ Task tray

2) In the "Safely Remove Hardware" dialog box, click [OK].

Windows 2000/Me users

- 1) Right-click the "BOSS_DR-880" icon (or the "Removable disk (*:)" icon) in My Computer, and execute "Remove."
- 2) Click theicon in the task tray, and click the message that indicates "Safely remove drive (*:)".



Task bar † Task tray

3) In the "Safely Remove Hardware" dialog box, click [OK].

8. Press [EXIT].

At this point, you can safely disconnect the USB cable from the DR-880 and the computer. $\,$

If you press [EXIT] without performing step 7, the message "Disconnect, OK?" is displayed.

In this case, press <code>[EXIT]</code> and then perform step 7.

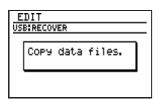
If you press [ENTER], the connection between the DR-880 and the computer will be forcibly terminated. In this case, it is possible that the backup will be incomplete, making successful recovery impossible.

Reading backup data back into the DR-880 from the computer (Recover)

Windows users

- 1. Use a USB cable to connect the DR-880 to your computer.
- With playback stopped, press [EDIT]. The edit menu screen appears.
- Move the cursor to the "USB" icon and press [ENTER]. The USB menu screen appears.
- 4. Move the cursor to the "RECOVER" icon and press [ENTER]. The USB recover screen appears.

 If USB Mode is set to "MIDI," the message "Check USB Mode!" is displayed, and the SMF Recover screen will not appear. Press [ENTER], and change the USB Mode to "STORAGE," and then power it up again (p. 134).



When connection with the computer has been established, the message will displayed "Copy data files."

A "BOSS_DR-880" icon (or a "Removable disk (*:)" icon) will appear on the computer.

(Ex.)



- **5.** Open the folder on the computer where you have stored the backup data.
- 6. Select all of the files you want to back into the DR-880.
- **7.** Copy them to the "BOSS_DR-880" icon (or "Removable disk (*:)" icon) on the computer.
- 8. Close the USB connection.

Windows XP users

Right-click the "BOSS_DR-880" icon (or the "Removable disk (*:)" icon) in My Computer, and execute "Remove."

If you are unable to execute the "Remove" operation in this way, proceed as follows.

1) Click theicon in the task tray, and click the message that indicates "Safely remove drive (*:)".



Task bar ∮ Task tray

2) In the "Safely Remove Hardware" dialog box, click [OK].

Windows 2000/Me users

- 1) Right-click the "BOSS_DR-880" icon (or the "Removable disk (*:)" icon) in My Computer, and execute "Remove."
- 2) Click theicon in the task tray, and click the message that indicates "Safely remove drive (*:)".



3) In the "Safely Remove Hardware" dialog box, click [OK].

The message "Now writing..." will appear, and the backup data will be recovered.

When the backup data have been recovered, the message will disappear. At this point, you can safely disconnect the USB cable from the DR-880 and the computer.

If you press [EXIT] without performing step 8, the message "Disconnect, OK?" is displayed.In this case, press [EXIT] and then perform step 8. If you press [ENTER], the connection between the DR-880 and the computer will be forcibly terminated. In this case, it is possible that the recovery will be incomplete, causing the operation of the DR-880 to later become unstable.

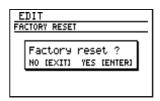
FACTORY RESET INSTRUCTIONS

You can restore the DR-880 to the condition it was in when it left the factory. This operation is called "Factory Reset."



When you execute Factory Reset, the user data will return to its factory-set condition. If the DR-880 contains important data you want to keep, use Bulk Dump (p. 131) to save the data on an external MIDI device, or use USB backup (p. 138) to save the data on the computer before you execute Factory Reset.

- **1.** With playback stopped, press [EDIT]. The edit menu screen appears.
- Move the cursor to the "FACTORY RESET" icon and press [ENTER]. The display will ask "Factory reset?"



3. If you're sure you want to execute Factory Reset, press [ENTER]. If you decide to cancel without executing, press [EXIT].

The message "Now writing..." will appear, and factory reset will be executed.

When factory reset have been completed, the message will disappear.

* Do not turn off the power while the message is displayed. Your data may be damaged if you do so.

SYSTEM SOFTWARE UPDATING INSTRUCTIONS

Required items

 In order to play back the update data, you will need a means to play back SMF data.

We recommend a computer + UM-2 + UpdSMF.exe (UpdSMFJ.exe). In the explanation that follows, we assume that you are using a computer + UM-2 + UpdSMF.exe (UpdSMFJ.exe).

- **1.** SMF data for the update CD-ROM (#17041565) _0000001.mid - _0000021.mid
- 2. SMF playback system
- Computer with USB connector (the UM-2 driver must be installed)
- UM-2
- UpdSMF.exe (English version) or UpdSMFJ.exe (Japanese version)
- 3. Adaptor BRC series
- 4. MIDI cable

Update procedure

- * As a precaution, please make a backup of the user data before you continue.
- Connect the MIDI OUT 1 (or 2) of your MIDI playback system (computer + UM-2) to the DR-880's MIDI IN.
- **2.** While holding down [SHIFT] + [EDIT], power-on the DR-880.

```
Flash-ROM Updater

CPU
1.00 0007 2004/05/13

EXT
1.00 0103 2004/09/27
```

3. Start up UpdSMF.exe (UpdSMFJ.exe), and make the following settings. MIDI Out Device =1: EDIROL UM-2 MIDI 1 (or 2)

SMF Path = the directory that contains the update SMF data

4. Click Scan SMF.

Verify that you see the update data (_0000001.mid - _0000021.mid).

5. Click Send.

The update will begin.

* Don't turn off the power during the update. Doing so may destroy the user memory.

During the update, the following screens will alternate. The FAVORITE [1]-[4] button LEDs will blink.

```
Flash-ROM Updater

adrs 0x00*****

Receiving...
```

```
Flash-ROM Updater

adrs 0x00*****

sum 0x****

Waiting...
```

6. When the update is finished, the following display will appear. Verify the checksum (Prg1, Prg2).

```
Flash-ROM Updater

adrs 0x0044FFF0
sum 0x****

Completed.
sum(prg1)0x****
sum(prg2)0x****
```

7. Power-off the DR-880.

TEST MODE

Required items

- 1. Oscillator
- 2. Oscilloscope
- 3. Monitor amp
- 4. Noise meter
- 5. Ammeter
- **6.** FS-5U
- **7.** EV-5
- 8. D/A converter
- 9. Computer

Supported OS: Windows XP/2000/Me or later

- 10. MIDI cable
- 11. USB cable

Preparations for test mode

Oscilloscope settings

TIME/DIV: 1 [msec] VOLT/DIV: 2 [V]

- Oscillator
- 1. Waveform: square wavefrequency: 200 [Hz], amplitude: 100 [mVp-p]
- **2.** Waveform: sine wavefrequency: 200 [Hz], amplitude: -10 [dBu]
- Noise meter

FILTER: JIS-A

• FS-5U

Set the POLARITY switch toward the jack.

• EV-5

Set the MIN VR to "0"

• DR-880

GUITAR/BASS INPUT VR = MAX

 $\begin{aligned} & DRUM \ VR = MAX \\ & BASS \ VR = MAX \\ & MASTER \ VR = MAX \end{aligned}$

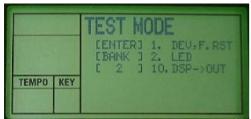
Test items

- 1. Device check
- 2. LED check
- 3. SW check
- 4. LCD and encoder check
- 5. Piezo check
- 6. Volume check
- 7. Foot switch check
- 8. Expression check
- 9. MIDI and USB check
- 10. Output D/A check
- 11. AF Gain check
- 12. Input A/D check

Entering test mode

While holding down the [KIT] and [DISPLAY] buttons, power-on the DR-880. If the unit is operating correctly, the following display will appear.





Press [ENTER] to begin the first test; 1. Device check.

MEMO

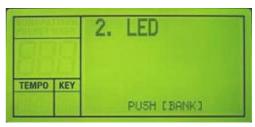
Press [BANK] to proceed to the next test item. Hold down [SHIFT] and press [FAVORITE 1] to return to the preceding test item.

1. Device check

- Press [FAVORITE 1] to begin the SDRAM check. Verify that a result of OK appears.
- Press [FAVORITE 2] to begin the FLASH check. Verify that a result of OK appears.
- Press [FAVORITE 3] to begin the ESP check. Verify that a result of OK appears.
- Press [FAVORITE 4] to begin the XP check. Verify that a result of OK appears.

Press [BANK] to proceed to the next test item.

2. LED check



LED color

Verify that all LEDs are lit.

Lit button

1.	EFFECT	red: 1
2.	LOOP	red: 1
3.	PLAY	green: 2
4.	REC	red: 1
5.	FAVORITE 1	red: 1
6.	FAVORITE 2	red: 1
7.	FAVORITE 3	red: 1
8.	FAVORITE 4	red: 1
9.	TSC	red: 1



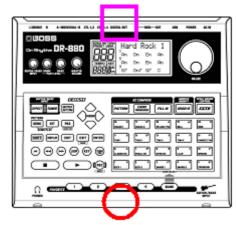


Note any inconsistency in the brightness of the left and right green LEDs.



Note any inconsistency in the brightness of the various red LEDs. LED/LCD shock test $\,$

Drop the rear edge of the unit (marked [] in the illustration) three times from a height of 5 cm. Then drop the front edge of the unit (marked O in the illustration) three times from a height of 5 cm. Verify that the LEDs do not go dark, and that there is no change in the LCD display.



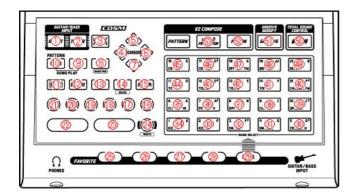
Press [BANK] to proceed to the next test item.

3. SW and LED check



Press the switch whose name is displayed.

For switches that have a lit LED, verify that the LED goes dark when you press the switch





If you pressed the correct switch.

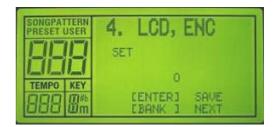


If you pressed the wrong switch. (Ex. press the KIT)



When all have been completed, press [BANK] to proceed to the next test item.

4. LCD and Encoder check



4-1. Adjusting the LCD contrast

Verify that there is no crosstalk in the background and is no unevenness in the contrast.

If there is a no problem with the contrast.

-> Use [BANK] to proceed to the next test item

If there is a problem with the contrast.

->Make this adjustment, please refer to followings.

Turn the encoder counter-clockwise to lighten the contrast.

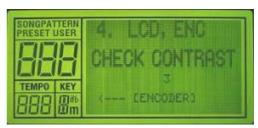
Turn the encoder clockwise to darken the contrast.

* The standard setting is "0." It is adjustable in a range from "-4" through "+4".

When you're finished making the setting, press [ENTER]. The display will indicate "Now Writing," and the setting will be written into memory.

Press the [BANK] switch to proceed to the next test item.

4-2. Slowly turn [VALUE] clockwise for three clicks.



Verify that the display changes from $0 \rightarrow 1 \rightarrow 2 \rightarrow 3$, and that the contrast below the characters darkens.

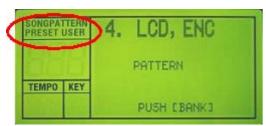
Verify that the characters can still be read even when the contrast is darkest (third click).

4-3. Slowly turn [VALUE] counter-clockwise for three clicks.



Verify that the display changes from 3 -> 2 -> 1 -> 0, that the contrast below the characters lightens, and that the characters do not disappear. Press [BANK].

4-4. PATTERN check



Check the text encircled in the illustration. [SONGPATTERN PRESET USER] Press [BANK].

4-5. PATTERN No. check



Check the text encircled in the illustration. $[8\ 8\ 8]$

Press [BANK].

4-6. TEMPO check

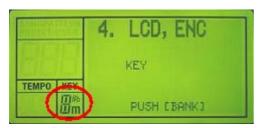


Check the text encircled in the illustration.

 $[8 \, 8 \, 8]$

Press [BANK].

4-7. KEY check



Check the text encircled in the illustration.

[8 1 #b m]

Press [BANK].

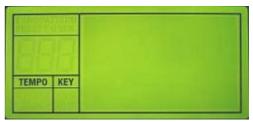
4-8. All Lit check



Verify that there is no inconsistency, missing characters, gaps, or light patches in the LCD.

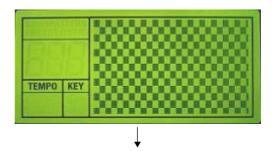
Press [BANK].

4-9. All Dark check



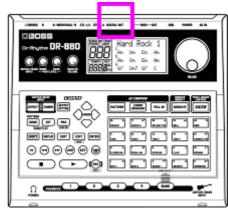
Verify that no display elements are lit. Press [BANK].

4-10. Checkerboard pattern check





Verify that the checkerboard pattern is not distorted.



Drop the rear edge of the unit (marked [] in the illustration) three times from a height of 5 cm, and verify that there is no abnormality in the display.

Press [BANK] to proceed to the next test item.

5. Piezo check



With your finger, lightly strike the pad [RIDE [20, B]] of the DR-880; the "VALUE" in the LCD will change.

"PEAK" will indicate the peak-hold value.

Gradually increase the force of your strikes until PEAK indicates "OK."

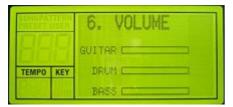


Verify that PEAK indicates OK.

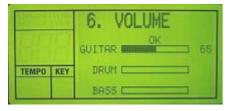
Press [BANK] to proceed to the next test item.

6. Volume check

6-1. Guitar/bass input VR check



Set the GUITAR/BASS INPUT VR to the center position.



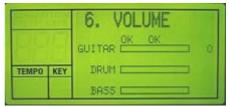


The result will be NG if you move any other volume control.

In this case, set all knobs to the maximum position, and then press the [TSC] switch to resume from the GUITAR/BASS INPUT VR check.



Set the GUITAR/BASS INPUT VR to the minimum position.



Set the GUITAR/BASS INPUT VR to the maximum position.



6-2. Drum VR check

Perform the same test for the DRUM VR. (maximum -> center -> minimum -> maximum)



6-3. Bass VR check

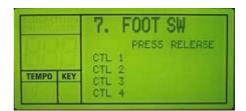
Perform the same test as you did for the BASS VR. (maximum -> center -> minimum -> maximum)



* If desired, you can set all knobs to the maximum position and then press the [TSC] and resume from the GUITAR/BASS INPUT VR check.

Verify that all VR tests are successfully completed (all OK). Press [BANK] to proceed to the next test item.

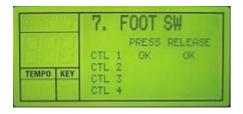
7. Foot Switch check



7-1. Press the FS-5U connected to CTL1 of the CTL 1,2 jack.



Release the FS-5U.



7-2. Test CTL2 in the same way. (press -> release)





7-3. Test CTL3 in the same way. (press -> release)





7-4. Test CTL4 in the same way. (press -> release)





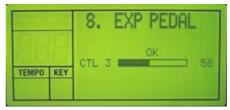
Verify that all Foot Switch tests produce a result of OK. Press [BANK] to proceed to the next test item.

8. Exp Pedal check

Connect an EV-5 to the CTL3,4 EXP PEDAL jack. Start with the expression pedal lowered (minimum position).



Slowly advance the EV-5 pedal (away from yourself).



Advance the EV-5 pedal to the maximum position (away from yourself).



Slowly return the EV-5 pedal to the minimum position (toward yourself).





 $\label{eq:theory} \hline \text{The OK result will not appear unless the center position is detected.} \\ \hline \text{Verify that all results return OK.} \\$

Press [BANK] to proceed to the next test item.

9. MIDI and USB test

MID

- 1. Use a MIDI cable to create a loop between MIDI OUT and IN.
- 2. Press [FAVORITE 1].
- **3.** Verify that that MIDI test result is OK.

USB

- 1. Use a USB cable to connect the DR-880 to your computer.
- 2. Press [FAVORITE 2].
- **3.** Verify that the USB test result is OK.

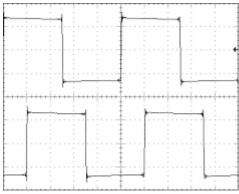


Press the [BANK] switch to proceed to the next test item.

10. DSP Thru Waveform check



10-1. Check the [MASTER OUTPUT] waveform.



VOLT/DIV:2V TIME/DIV:1mS

10-2. Slowly turn [MASTER VOLUME] toward the minimum position.

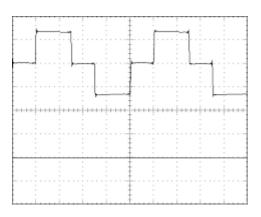
Verify that the square wave shown in the illustration from "OUTPUT $L/R^{\prime\prime}$ gradually decreases.

10-3. Slowly turn [MASTER VOLUME] toward the maximum position.

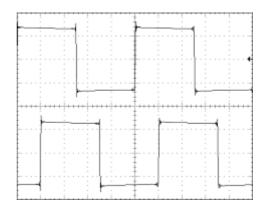
Verify that the square wave shown in the illustration from "OUTPUT $L/R^{\prime\prime}$ gradually increases.

- * Note: The waveform must not abruptly increase or cut out.
- * Note: Misshapen waveforms or waveforms below the nominal level are NG.

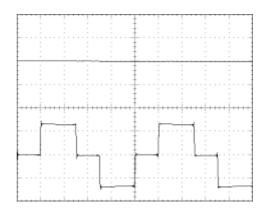
10-4. Disconnect the plug from [MASTER OUTPUT] R, and check the waveform.



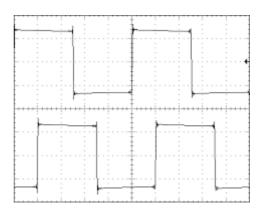
10-5. Insert the plug back into [MASTER OUTPUT] R, and check the waveform.



10-6. Disconnect the plug from [MASTER OUTPUT] L (MONO), and check the waveform.

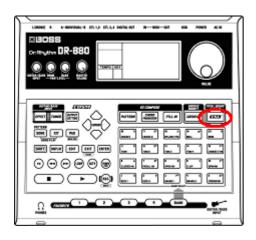


10-7. Insert the plug back into [MASTER OUTPUT] L (MONO), and check the waveform.

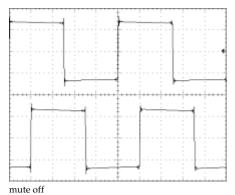


10-8. MUTE circuit check

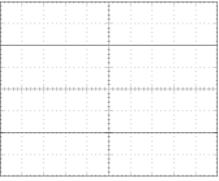
Use [TSC] to switch between MUTE_OFF <--> ON.



10-8-1. Check the "MASTER OUTPUT L (MONO)/R" waveform.

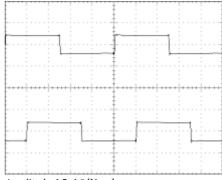


Amplitude: 4.8--6.0 [Vp-p]



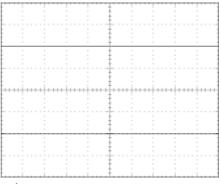
mute on

10-8-2. Check the [MASTER OUTPUT] (PIN) waveform.



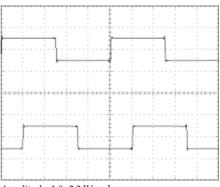
Amplitude: 1.5--1.9 [Vp-p]

mute off



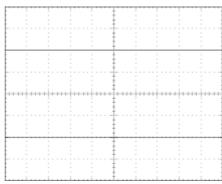
mute on

10-8-3. Check the [INDIVIDUAL] waveform.



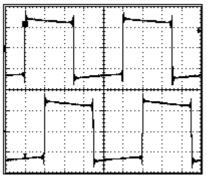
Amplitude: 1.8--2.3 [Vp-p]

mute off

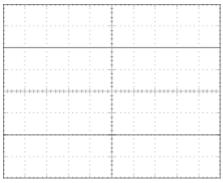


mute on

10-8-4. Check the [PHONES] waveform.

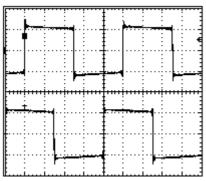


Amplitude: 4.9--6.1 [Vp-p] mute off



mute on

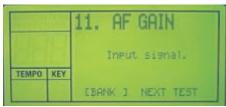
10-8-5. Check the DIGITAL OUT waveform.



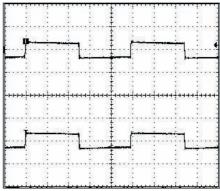
Amplitude: 4.0--5.0 [Vp-p]

Press the [BANK] switch to proceed to the next test item.

11. AF Gain check



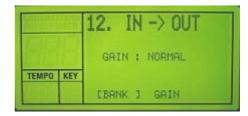
Input a square wave (200 Hz, 100 mVp-p) from the "GUITAR/BASS INPUT." Check the square wave that is output from "MASTER OUT L (MONO)/R."



Amplitude: 1.3--1.5 [Vp-p]

Press [BANK] to proceed to the next test item.

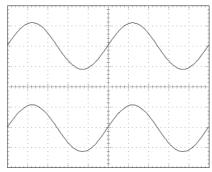
12. IN-OUT check, Residual Noise check



12-1. Check the "MASTER OUT" L (MONO)/R waveform.

Input a sine wave (200 Hz, -10 dBm) from the "GUITAR/BASS INPUT." On your oscilloscope, set VOLT/DIV to 5 [V].

Check the sine wave that is output from "MASTER OUT L (MONO)/R."

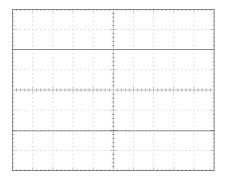


VOLT/DIV:5V TIME/DIV:1mS

Amplitude: 9.0--12 [Vp-p]

If distortion is visible in the waveform, the result is NG.

Remove the plug from the "GUITAR/BASS INPUT."



^{*} It is not necessary to check MUTE.

12-2. Check the residual noise of "MASTER OUT" L (MONO)/R.

Listen to the noise, and verify the following.

- 1. Noise level: -73 dBu or less (both L and R)
- **2.** No abnormal sound is present in the output.
- No abnormal sound is produced when you apply physical shock to the unit.

12-3. Check the residual noise of "MASTER OUT" (PIN).

Listen to the noise, and verify the following.

- 1. Noise level: -82 dBu or less (both L and R)
- 2. No abnormal sound is present in the output.
- **3.** No abnormal sound is produced when you apply physical shock to the unit.

12-4. Check the residual noise of "INDIVIDUAL."

Listen to the noise, and verify the following.

- 1. Noise level: -77.5 dBu or less (both L and R)
- 2. No abnormal sound is present in the output.
- No abnormal sound is produced when you apply physical shock to the unit.

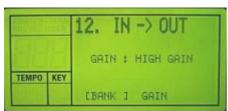
12-5. Check the residual noise of "PHONES."

Listen to the noise, and verify the following.

- 1. Noise level: -72 dBu or less (both L and R)
- **2.** No abnormal sound is present in the output.
- No abnormal sound is produced when you apply physical shock to the unit.

12-6. Check the residual noise of "MASTER OUT" L (MONO)/R at the Hi-Gain setting. (INPUT residual noise check)

Press [BANK] to select "Hi-Gain."

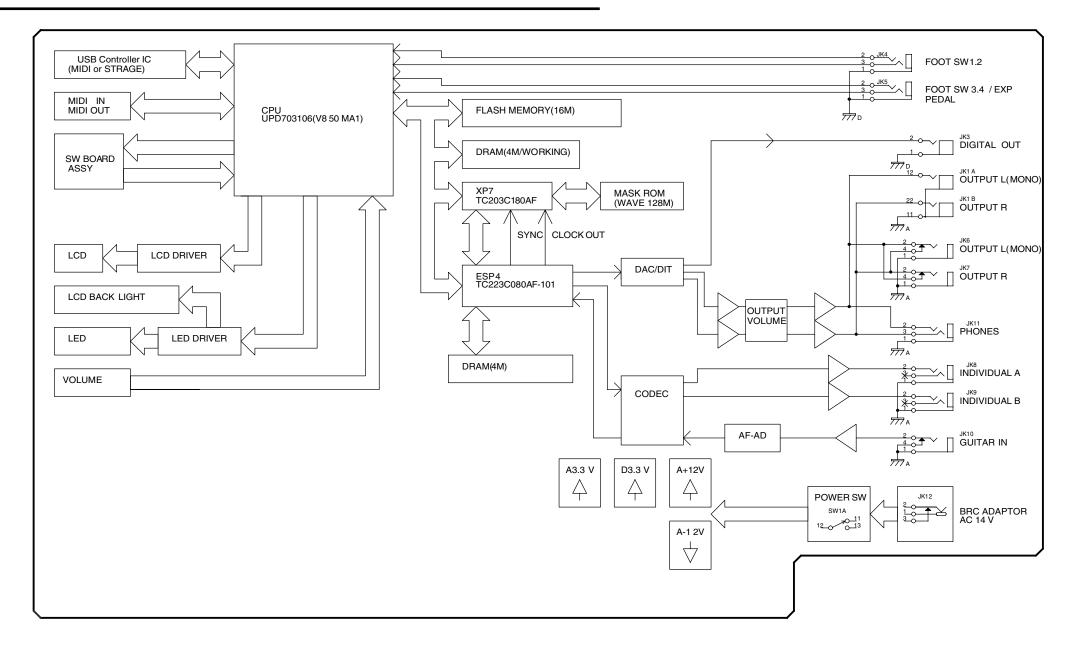


Listen to the noise, and verify the following.

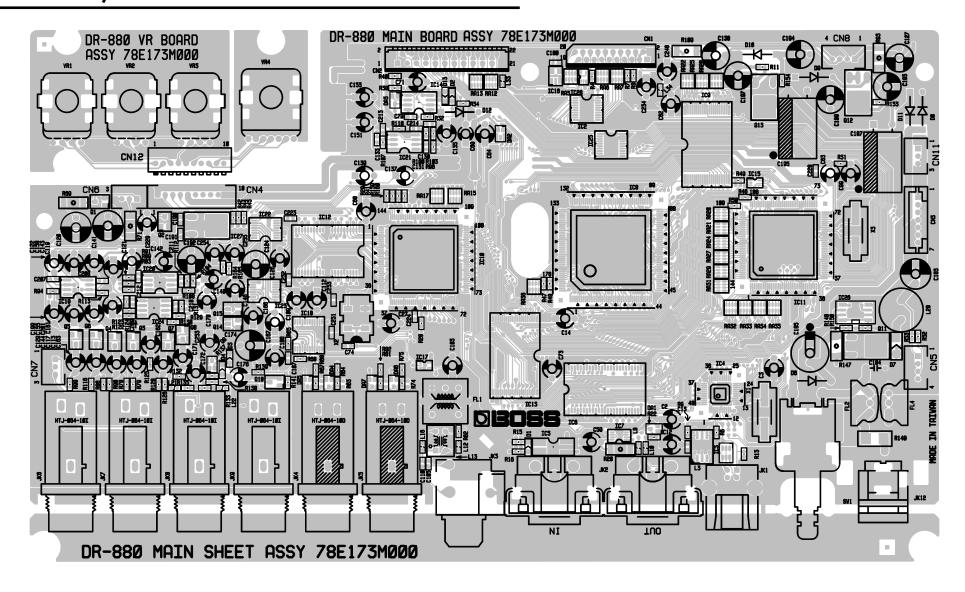
- 1. Noise level: -70 dBu or less (both L and R)
- 2. No abnormal sound is present in the output.
- **3.** No abnormal sound is produced when you apply physical shock to the unit.

13. Turn off the power.

BLOCK DIAGRAM

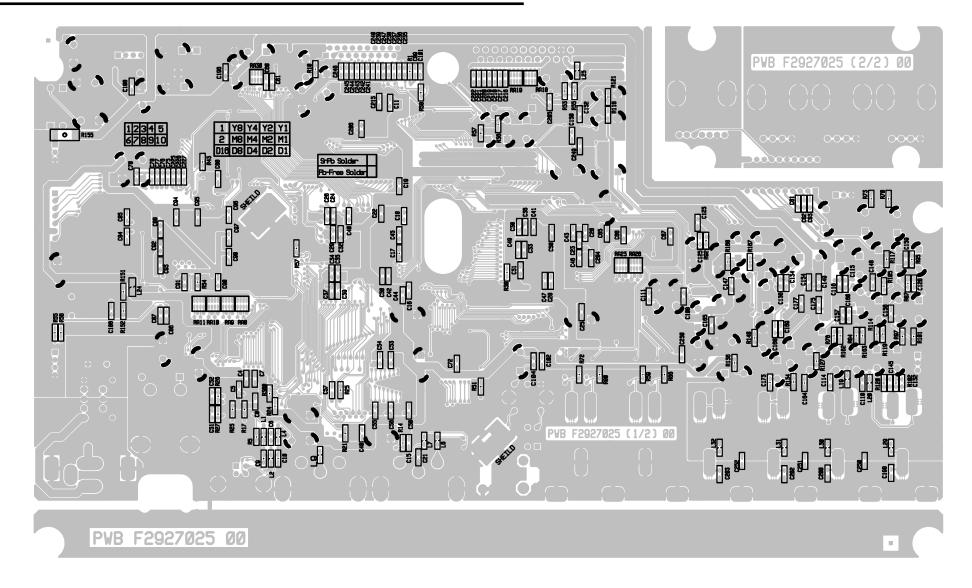


CIRCUIT BOARD (MAIN BOARD)



View from components side

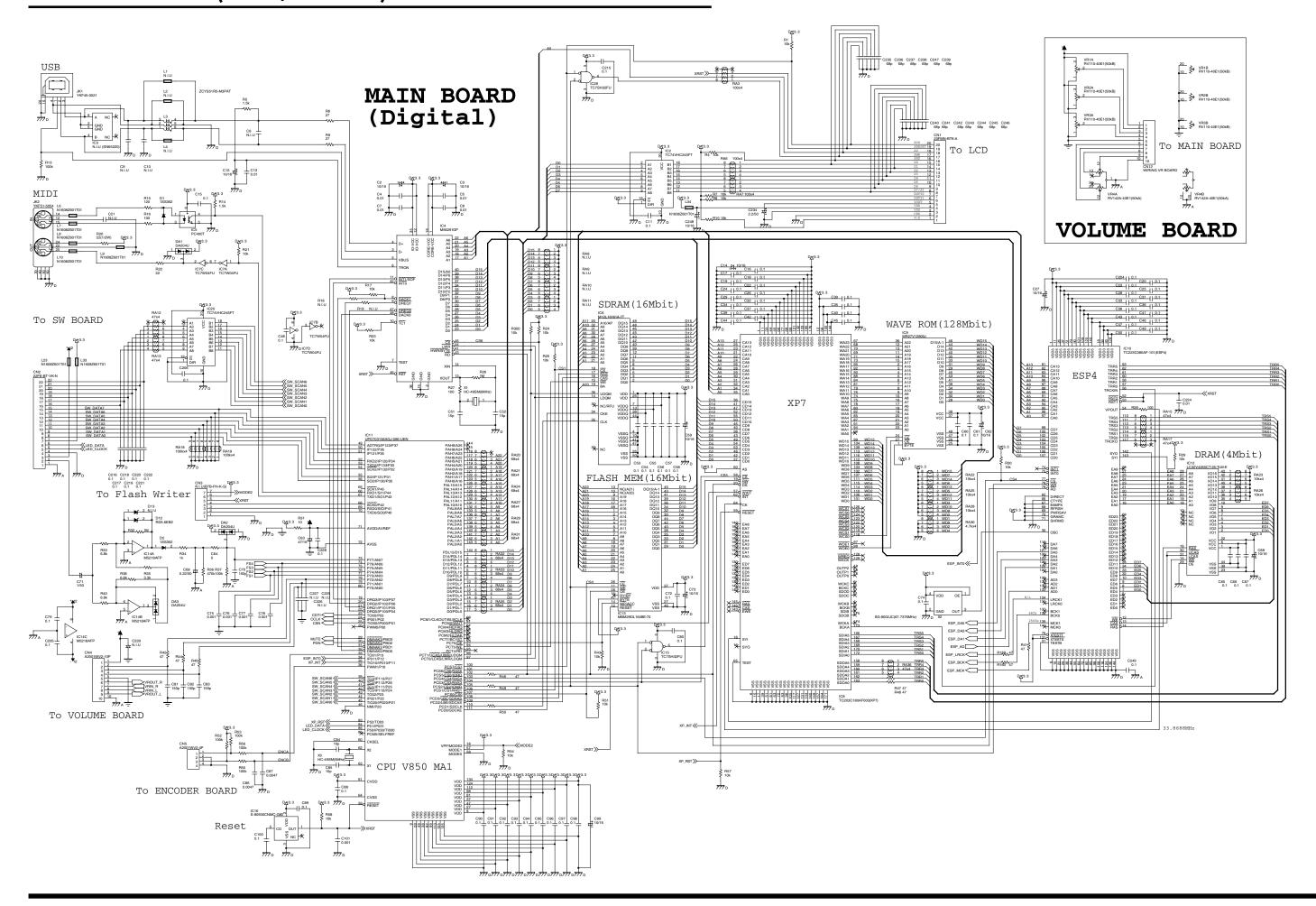
CIRCUIT BOARD (MAIN BOARD)



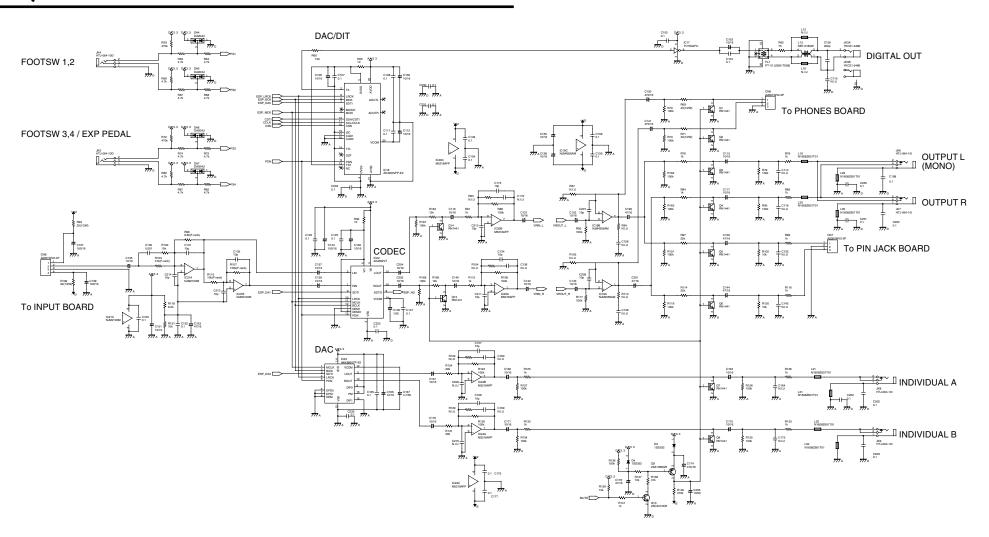
View from foil side

Dec.2004 DR-880

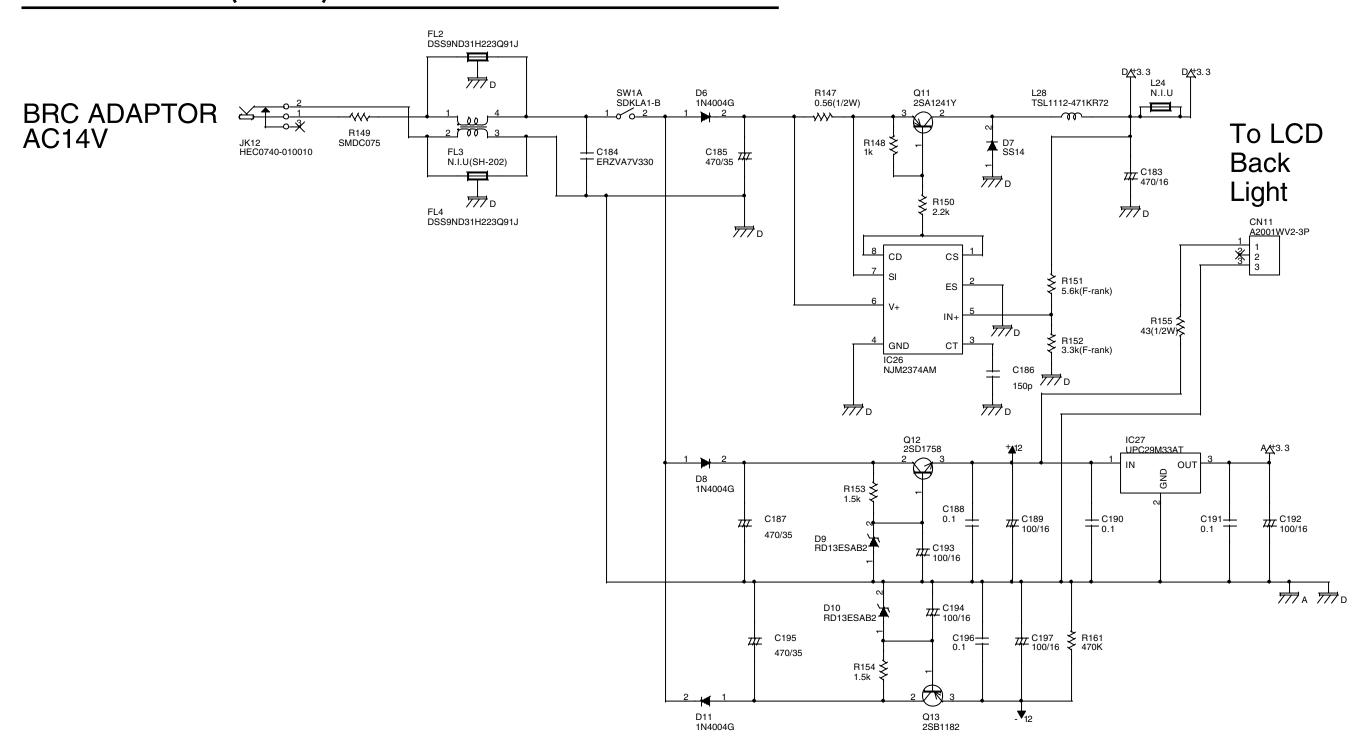
CIRCUIT DIAGRAM (MAIN, VOLUME)



CIRCUIT DIAGRAM (JACK)

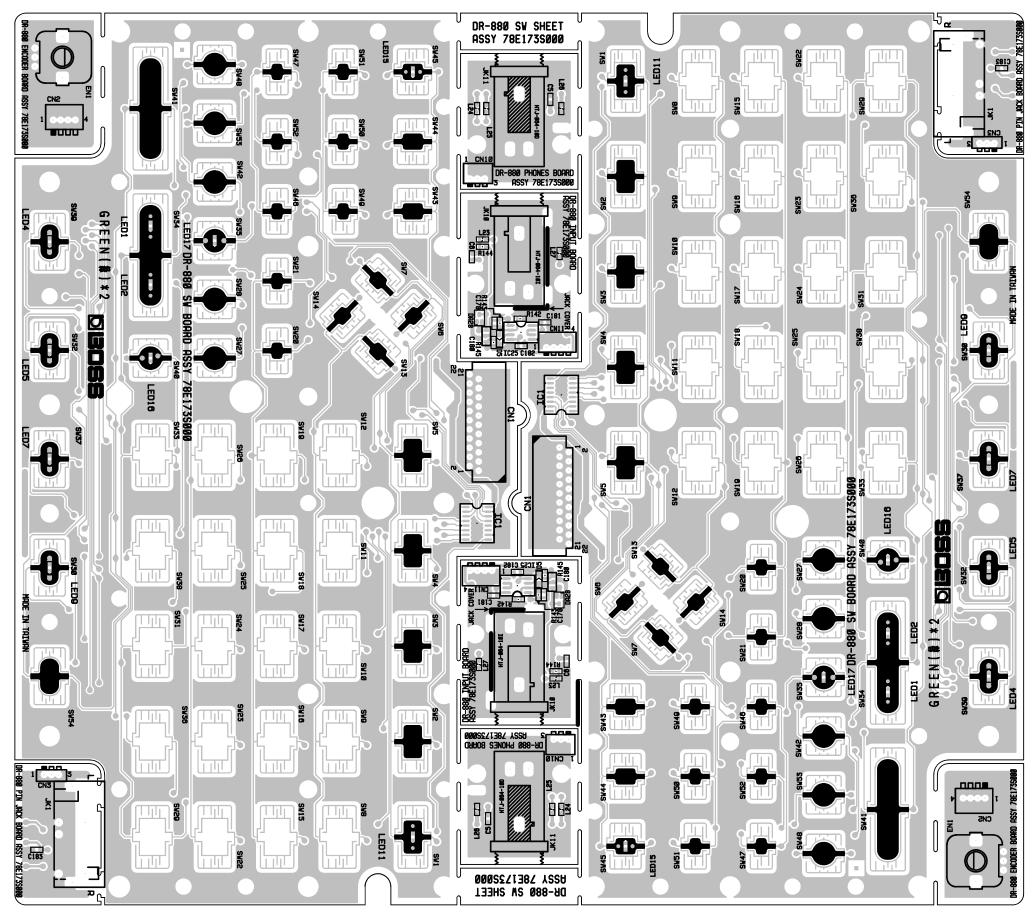


CIRCUIT DIAGRAM (POWER)



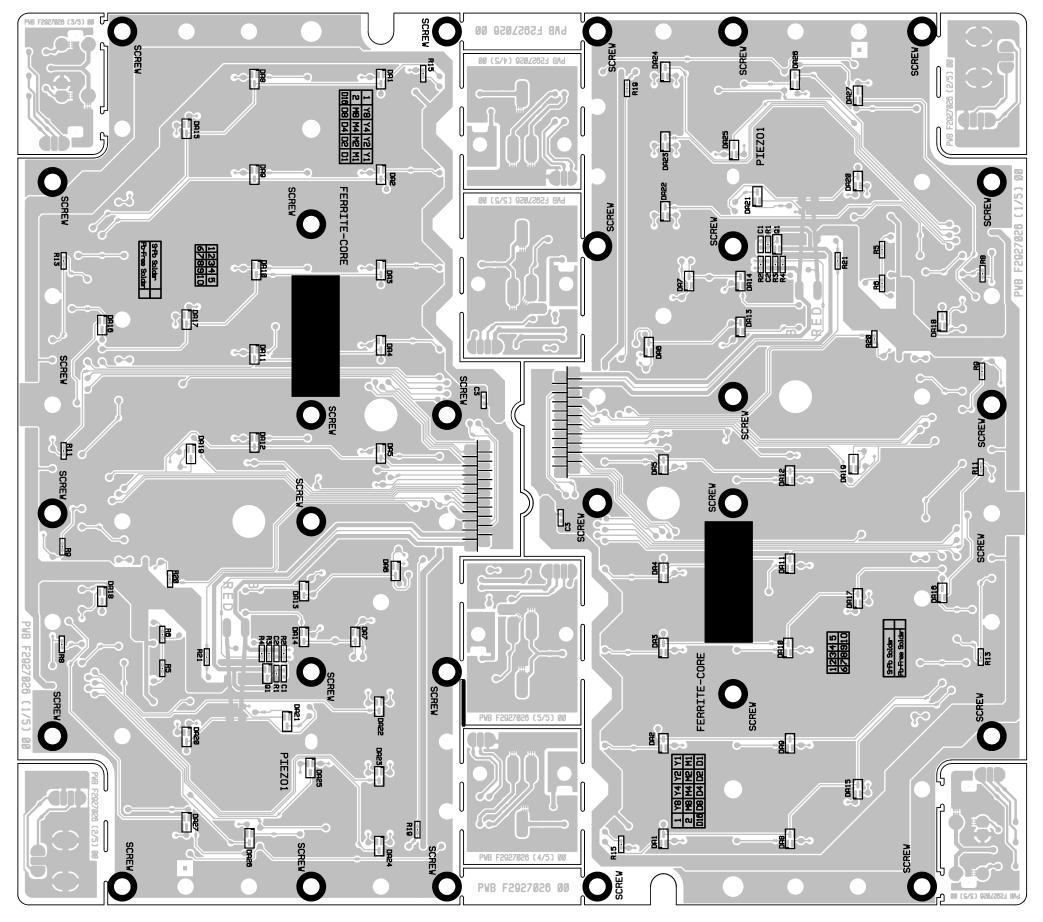
DR-880

CIRCUIT BOARD (SW)



View from components side

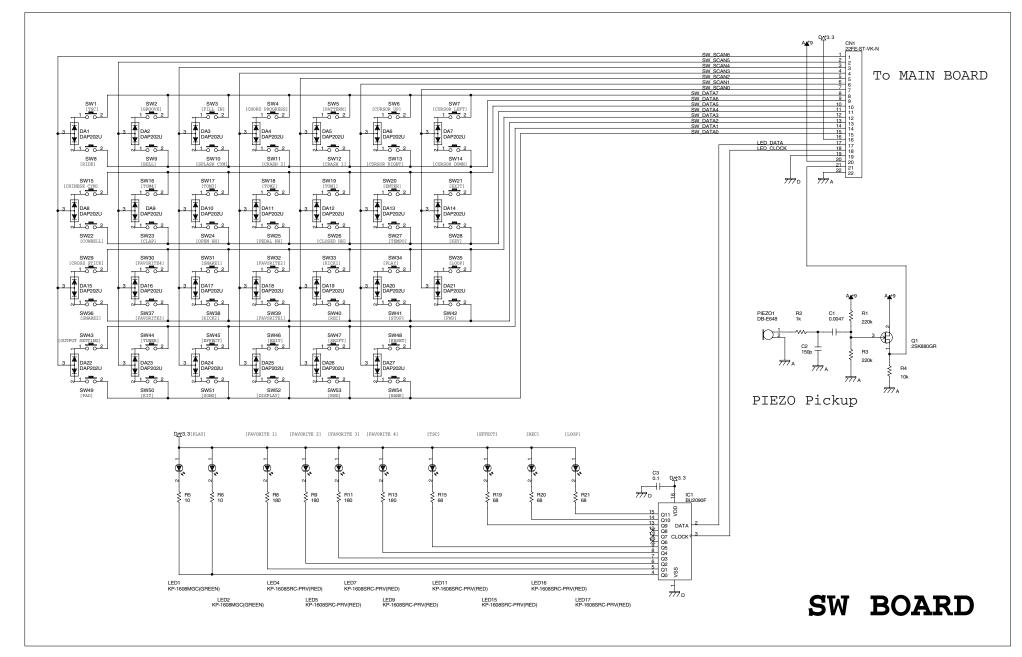
CIRCUIT BOARD (SW)

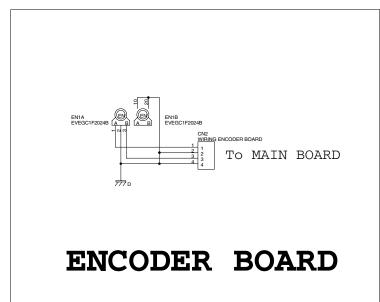


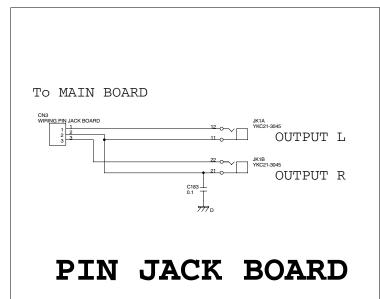
View from foil side

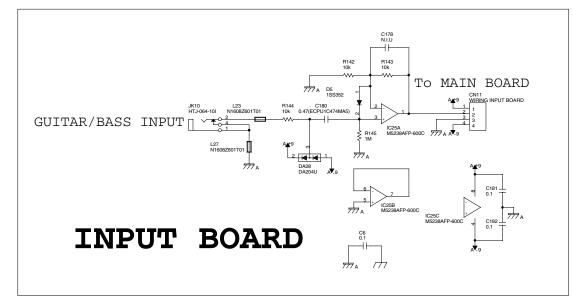
Dec.2004 DR-880

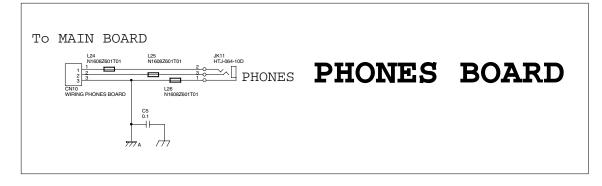
CIRCUIT DIAGRAM (SW, ENCODER, PIN, INPUT, PHONES)











ERROR MESSAGES

Buffer full!

Cause 1: Too many MIDI messages were received all at once, and the DR-880 was unable to process all of them.

Action 1: Reduce the volume of the MIDI messages being sent by the transmitting device.

Cause 2: You attempted to play back an excessive amount of data, and the DR- 880 was unable to process all of it.

Action 2: Reduce the amount of data being played back, or slow down the playback tempo.

Checksum error!

Cause: MIDI Exclusive messages could not be received correctly during a

Bulk Load operation.

Action: Try the operation again.

File error!

Cause: During an SMF Import, you attempted to use a file of a type other

than those specified, or one that is invalid.

Action: Use the specified type of file.

Memory full!

Cause: Memory is full.

Action: Save the pattern/song you are creating, and then delete unneeded

patterns or songs.

MIDI off line!

Cause: A MIDI Active Sensing error has occurred. An abnormality has been

detected in the device or cable connected to MIDI IN.

Action: Check the device or cable connected to MIDI IN.

Not supported!

Cause: You attempted to import SMF data that the DR-880 does not support.

tion: Check that the SMF is in a format that can be imported by the DR-880.

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Now working...

Cause: Data is being processed.

Action: Please wait until the message disappears.

Now writing...

Cause: Data is being saved to memory.

Action: Never turn off the power while this message is displayed.

* If you turn off the power while this message is displayed, it is possible that previously saved data (in addition to the data now being written) will also be lost.

Too busy!

Cause: The system attempted to concurrently process abnormally large

amounts of data, but was unable to succeed.

Action: Make sure that the unit is not being forced to handle an overly large amount of data (in patterns, or received MIDI messages) all at once,

and try to reduce the amount of data.

Use pattern mode.

Cause: You attempted to use EZ Compose or Groove Modify in Song mode.

Action: Switch to Pattern mode before using EZ Compose or Groove Modify.

User data is damaged. Factory Reset

Cause: The data in the DR-880's internal memory is damaged. (This message

will appear when you turn on the power.)

Action: Press [ENTER] to reset the DR-880 to the factory-set condition.

System error!

Cause: An unknown error has occurred in the system.

Action: Immediately stop using the unit, and consult your dealer or nearest

Roland Service Center.